SMARTPHONE BLUETOOTH BARCODE SCANNER

REFERENCE MANUAL

[SP-2100-2D]

UNIONNET

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(Version 1.32)

IMPORTANT NOTICES

PRECAUTIONS

Precautions for Use

- Read precautions carefully before using.

Before installation

1. Please let this be away from the direct ray of light, heating system like a heater.
2. It can be interrupted with magnetics.
3. Please do not install this around water.
4. It can cause (a)trouble(s) if It drops.

When Controlling,

1. Please do not sprinkle water on it directly and do not clean with benzene, thinner, or alcohol, etc..
2. Please do not touch and look up the beam directly
3. Please do not break it up, fix it up, and reorganize it.
4. Please do not use it as a toy of children.
5. Please do not spill coffee or drink on it.
6. Please contact our Service Center directly when it needs to be fixed.
7. Please charge the battery with the Rated Voltage
8. Please use only the Genuine USB cable included, in case of use of PC USB cable for computer, it can be damaged.

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COMPOSITION (SP-2100)

Barcode Scanner

USB Cable USB

Adaptor

Lanyard

USB Cigar Jack for CAR (OPTION)

EXTERIOR VIEW

89mm(L) * 43mm(W) * 19mm(H)

① MAIN BUTTON: POWER & scan the Barcode
② Down Scroll Button : Checking the barcode data
③ Up Scroll Button : Checking the barcode data & enter to System Menu
④ LCD Window : Checking the Scanner status & Barcode data in real time
⑤ LED : Green / Red LEDs & Checking the scanned Barcode success or not
⑥ Mini USB charging port & reset button
⑦ Dust Cover for scanner engine
⑧ Buzzer

BATTERY CHARGING & TURN ON/OFF & AUTO Reconnect / Disconnect

Battery Charging:

Users can easily use a Cigar Jack or USB cable with adaptor to charge the SP-2100.

Turn On: Put No.1 button about 3 seconds.

Turn Off: It will automatically turn off according to the Power Auto-Off settings.

Turn Off (shortcut key): Press the Scan button for about 7 seconds then it will turn off directly.

Auto-Reconnect:

Pls. press the "down button" only one time when the scanner's pairing is disconnected from the device. Then after about 1 - 2 sec., SP-2100 will be completely reconnected to the latest device.

Disconnect:

Pressing the "down button" about 3 sec. when BT is connected to the device

BARCODE SCAN & FIRMWARE READY MODE & SCANNER RESET SETTING

How to scan the Barcodes:

The Barcode data will be indicated with a beep sound on the OLED Screen, when users press the Scan Button into the distance of about 10 - 30cm.

Firmware Ready Mode:

To upgrade its firmware, users first need to go to a "firmware upgrade mode" by pressing the scan button + up button simultaneously, then the LED will be flashing and it means ready.

Scanner Rest:

If user needs to reset the scanner, pls. press the reset button which is located at bottom left of the scanner.

INSTALLATION with Windows XP / Vista / Windows 7

Windows XP / Vista / Windows 7

WARNING: ***DO NOT CONNECT SP-2100 SCANNER TO USB PORT PRIOR TO INSTALLATION***

1. Insert SP-2100 Installation CD into your computer's CD drive.
2. Go to Driver Folder in the CD.
3. Click **SP-2100 Driver and** then try to install the driver at your computer.

*** You can download the driver at our homepage as follows ***

http://www.unionnet.co.kr/eng/products/list_new.asp?ref=15&title=Bluetooth Barcode Scanner

NOTES

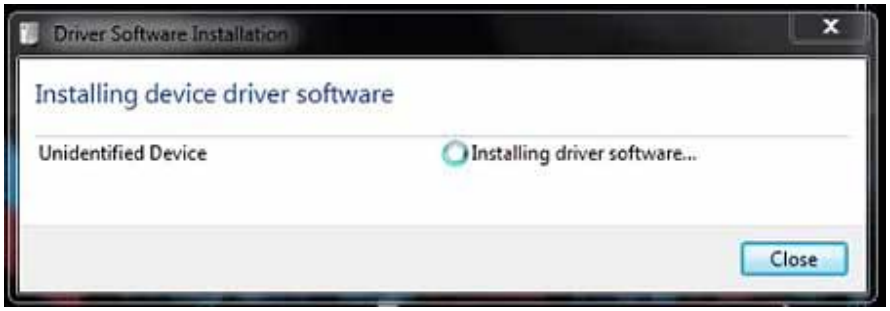
• If you have any problems, please refer to the Manual Installation section.

SP-2100 DRIVER SETUP

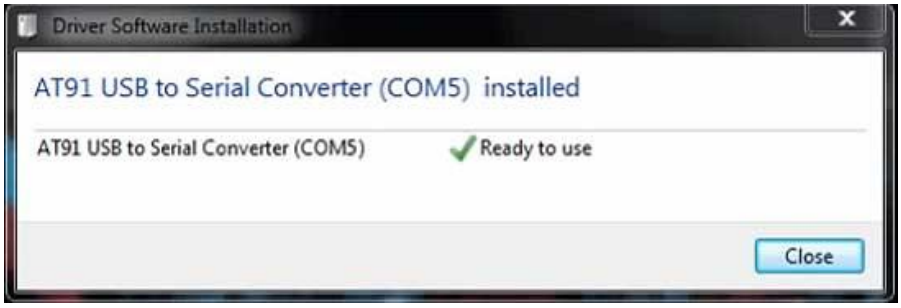
Below are the screen images you will see during the installation of SP-2100 Driver.

① Try to connect the SP-2100 to the PC using the USB cable
& turn-on the SP-2100 scanner for driver installation ready.

② After a few minutes, the [Driver Software Installation] program is automatically run and select <The Driver folder, you can find it into the CD > SP-2100 Driver, if your PC ask for a suitable driver, and select the <Next> button.

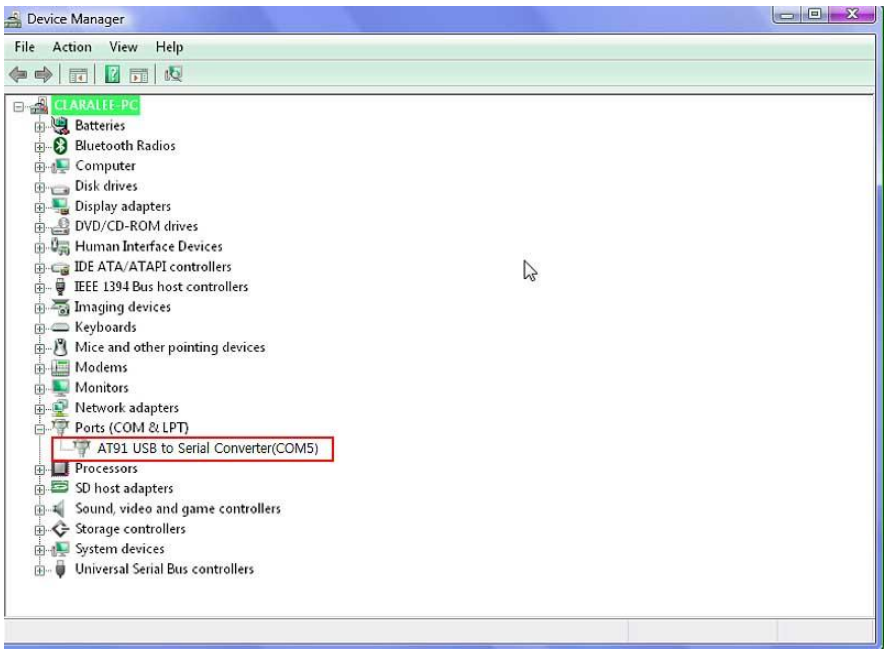


③ If you see the following message on your PC, then it means that the program is successfully installed.


Driver Software Installation
AT91 USB to Serial Converter (COM5) installed
AT91 USB to Serial Converter (COM5)
Ready to use
Close

④ User can verify installed COM Port in Device Manager as below.

Notes: After installation, if you see either "SP-2100 BARCODE SCANNER (COM5)" or "AT91 USB to Serial Converter (COM5)", it means that the installation is successfully done.



AVAILABLE APPLICATIONS FOR SP-2100 TESTING

Android

Download and install "UniReaderSPP" and "UniLinker" from the Android Market.

UniReaderSPP

UniLinker

iPad/iPhone/iPod touch

Download and install "Uni-Linker" from the Apple App Store.

BATTERY CHARGING & READING BARCODES

Charge SP-2100 Battery

Prior to using the KDC, you must charge its battery fully. To charge the battery, follow these directions.

1. Connect the SP-2100 cable to the mini USB connector on the SP-2100
2. Connect the SP-2100 cable to USB connector on your computer.
3. Your SP-2100 battery will begin charging. Then you can directly see the battery charging on the LCD window and if you need to check exactly how much battery is charging now, you can check the actual battery fuel by entering to the System Menu → Battery.

Approximate Time to Charge for SP-2100 Battery

SP-2100-1D	***SP-2100-2D***	***REMARKS***
2 Hours and Half	*2 Hours and Half*	*Capacity : 1,450mAh*

How many barcodes can a fully charged SP-2100 scan?

Language	***Standard*** *(ex: USA / EU / Asia countries)*	***Bespoke*** *(ex: Japan)*
Scan Byte	*250Byte*	*500Byte*
Scan & Store	*About 30,000*	*About 15,000*

The SP-2100 can scan more than 30,000 barcodes when fully charged. And the capacity of stored data by SP-2100 can be different depends on each countries scan Byte like above chart.

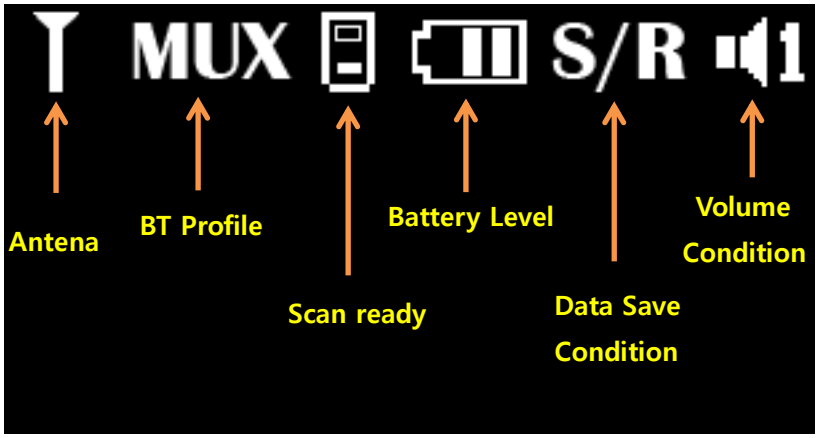
Reading Barcodes

Reading a barcode is quite easy and simple. Point the SP-2100 at a barcode and press the scan button. Be sure to point the scan engine at the barcode, not at your face, and make sure to position the light beam on the barcode. If the barcode is scanned successfully, you will hear one beep and the LEDs will illuminate in green. The scanned barcode data will be displayed along with the scan time and battery level.

Failed reading... If you have problems scanning a barcode, try the following suggestions while pointing the SP-2100 at the barcode and depressing the scan button.

- Modify the angle of the SP-2100 in relation to the barcode, making the angle bigger or smaller as needed.
- Modify the distance between the barcode and the SP-2100, moving closer or further away as needed.
- Check option settings defined in the SP-2100 menu section and change options as needed.
- Check that the barcode's width does not exceed the light beam's width and vice versa.

SP-2100 LCD DISPLAY CONDITIONS



SP-2100 SAVED DATA DISPLAY

DISPLAY	***Standard*** *(ex: USA / EU / Asia countries)*	***Bespoke*** *(ex: Japan)*
TYPES *(stored data)*	1/7th 1 20121210120355SP 3B6A60947	1/7th 1 2012 12 - 10 12 : 03:55 SP 3B6A60947

The SP-2100 can display the stored data on LCD window with a different way according to each client requests and its display types. (Standard / Bespoke)

SP-2100 SYSTEM MENU

Top Menu	Sub Menu	Options	SP-2100-1D	SP-2100-2D	Default Set
Information	S/N, M/D, H/W, F/W, BOOTLOADER, MEMORY	Checking the present Version	N/A	N/A	N/A
Settings	Power Auto Off	1min – 10min	Enable	Enable	5min
	LCD Auto Off	1sec – 60sec	Enable	Enable	10sec.
	Backlight	10% - 100%	Enable	Enable	60%
	RealTime Clock	y/m/d/D	Enable	Enable	N/A
	Pre/Suffix Set	Setup Pre/Suffix	Enable	Enable	NUL (NOT)
	Language	Kor/Eng	Kor/Eng	Kor/Eng	Eng.
	Buzzer	**3 : 2 : 1 : Off** (High : Middle : Low : Off)	N/A	N/A	3 (High Beep)
	Vibrator	Enable/Disable	Enable	Enable	Disable
	Default Config.	Yes/No	Yes	Yes	No
Bluetooth	Information	Checking the present BT info.	N/A	N/A	N/A
	BT Profiles	HID SPP (Automatically change by MUX)	N/A	N/A	MUX
		MFi (only for iOS)			
	HID Batch	Enable	N/A	N/A	N/A
	MFI Mode	Enable / Disable	Enable	Enable	Enable
	Auto Reconnect	Enable/Disable	Enable	Enable	Disable
	Disconnect	Enable	N/A	N/A	N/A
	HID Date Add	Enable/Disable	Enable	Enable	Disable
	Trans Language	English French Danish Swedish	Enable	Enable	English

	HID Select	Normal / Special	Normal / Special	Normal / Special	Normal
	HID Char Delay	Time: Not Delay ,10,20,50,100, 200,500(msec)	Enable	Enable	Not Delay
	HID String Int.	Time: Not Interval, 100,200,500(msec) 1,2,5(sec)	Enable	Enable	200msec
Scan Engine	Information	Checking the present Scan engine info.	N/A	N/A	N/A
	Engine Setup	SE-380[1D] EM-1300[1D] EM-3000V2[2D]	N/A	N/A	N/A
	Continue Mode	Auto / Manual	Auto / Manual	Auto / Manual	Manual
	Duplicate Data	Enable/Disable	Enable	Enable	Disable
Memory	Data Save	SR (Save&Real send) SN (Save&Not send) PR (Pass&Real send)	Enable	Enable	SR
	Memory Info.	Checking the present memory info.	N/A	N/A	N/A
	Delete Memory	Yes/No	Yes	Yes	No
Battery	Power view	Checking the present battery fuel and info.	N/A	N/A	N/A
Service	Service info.	Checking the supplier's contact info.	N/A	N/A	N/A

[SP-2100 MENU OPTIONS]

HID Batch

User can synchronize stored barcode data over HID using SP-2100 HID Batch option. SP-2100 starts to transmit all stored barcode data upon executing HID Batch option.

MFI Mode (Serial mode at ios device)

User can set the BT profile to MFI when the SP-2100 needs to connect to iOS devices like serial mode. User can choose either enable or disable according to the user's device and working condition.

(Notes #1.)

In case of using with Android HID or SPP or iOS HID : Needs to set the MFI Mode to "Disable"

(Notes #2.)

In case of using with iOS MFi(serial mode): Needs to set the MFI Mode to "Enable"

Auto Reconnect (Shortcut key: pressing down button only 1 time)

User can set the SP-2100's "Auto Reconnect" condition between Enable and Disable.

 Enable: permits to reconnect to the latest device automatically, when SP-2100 turn-on or disconnected.

 Disable: Do not permit to reconnect to the latest device automatically.

Disconnect (Shortcut key: pressing down button about 3 sec.)

User can disconnect the SP-2100's connection to the device forcibly.

HID Trans Language

User can select "international keyboard" – English, French, Danish, and Swedish

HID Select (Not mandatory)

User may select "HID Select" options according to the each country's keyboard condition.

 Normal: Standard keyboard such as English, Korean, European languages…

 Special: Japanese, Chinese and others..

HID String Internal and Inter-Character Delay

Certain application can't process HID input fast enough and lose some characters during transmission. Users would increase initial and inter-character delay to prevent data lose during HID transmission

 HID Inter-character Delay

* Define the inter-character delay between [Not Delay ,10,20,50,100,200,500(msec)] in HID mode

 HID String Delay

* Define the initial delay between [Not Interval, 100,200,500(msec)1,2,5(sec)]in HID mode

Disconnect/Reconnect/HID Toggle

Users can disconnect or reconnect the SP-2100 Bluetooth connection and active toggle soft keyboard using side down buttons as follows.

DEVICE O/S	PROFILE	KEY (Common)	RECONNECT	DISCONNECT	Toggling
Android	HID	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	N/A
	SPP	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	N/A
	MFi	N/A	N/A	N/A	N/A
IOS	HID	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	Pressing only one time when BT is connected
	SPP	N/A	N/A	N/A	N/A
	MFi	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	Pressing only one time when BT is connected
PC	HID	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	N/A
	SPP	DOWN KEY	Pressing one time	Pressing about 3 sec. when BT is connected to the device	N/A

ANDROID UniReaderSPP

Android - UniReaderSPP

The UniReaderSPP provides limited functionality to Android users.

- **UniReaderSPP only supports Android devices with 2.1+ OS version**

SP-2100 and Android Pairing

1. Pairing & Connection

Pls. refer to the reference manual pages from p. 27 to p.33

Launch SP-2100 UniReaderSpp

1. Try to pair SP-2100 to your android device.
2. Download and install "UnireaderSPP" from the Android Market. (Search with "UnireaderSPP" on Android Market)
3. Check the SP-2100's BT profile and try to set the scanner's MFI Mode to "Disable" in the Bluetooth Menu, then user can see the "MUX" on the screen with a "Normal Antenna" mark.
4. Try to open the "UniReaderSPP" application on your device.
5. Find your SP-2100 serial no. in the paired device at UnireaderSpp. App.
6. Click on "your serial no. paired"
7. If SPP profile connection is successfully done, users can hear a short beep sound with green LED illumination and the BT profile of your SP-2100 will automatically be changed to SPP on the screen.
8. You can scan the available barcodes then the scanned barcode will be displayed on the list of UniReaderSPP app.

(Application icon)

(Application image)

UniReaderSPP

ANDROID Uni-Linker

Android – UniLinker

The Android UniLinker provides limited functionality to Android users.

- **UniLinker only supports Android devices with 2.1+ OS version**

SP-2100 and Android Pairing

1. Pairing & Connection

Pls. refer to the reference manual pages from p. 27 to p.33

Launch SP-2100 with UniLinker

1. Try to pair SP-2100 to your android device.
2. Download and install "UniLinker" from the Android Market. (Search with "UniLinker" on Android Market)
3. Check the SP-2100's BT profile and try to set the scanner's MFI Mode to "Disable" in the Bluetooth Menu, then user can see the "MUX" on the screen with a "Normal Antenna" mark.
4. Try to open the "UniLinker" application on your device and click the menu button on the device.
5. Click the "Search Devices" and then find your SP-2100 serial no. in the paired device at UniLinker App.
6. Click on "your serial no. paired"
7. If SPP profile connection is successfully done, users can hear a short beep sound with green LED illumination and the BT profile of your SP-2100 will automatically be changed to SPP on the screen.
8. You can scan the available barcodes then the scanned barcode will be displayed on the list of UniLinker app.

(Application icon)

(Application image)

UniLinker for Android

iOS(iPhone / iPad / iPod touch) Uni-Linker

iPhone, iPad, iPod touch – Uni-Linker

The Uni-Linker provides limited functionality to iOS users.

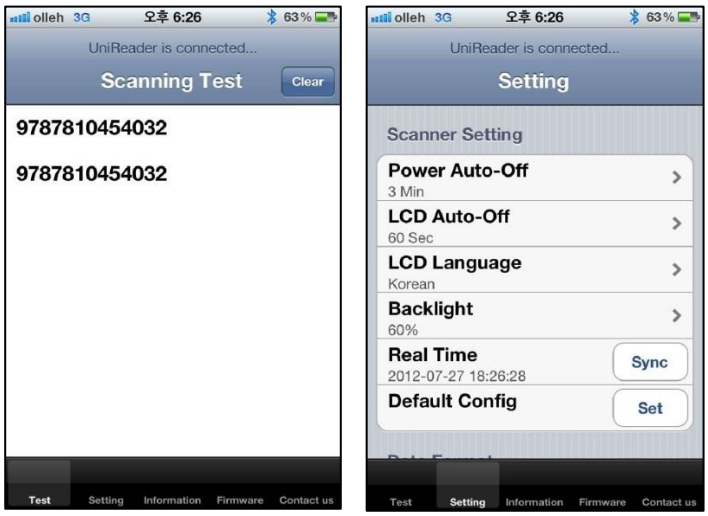
- **Uni-Linker only supports iOS devices with iOS 4.0 and above(iPhone, iPad, iPod) version**

SP-2100 and iOS Pairing

1. Pairing & Connection : Pls. refer to the reference manual pages from p. 34 to p.39

Launch SP-2100 with Uni-Linker

1. Check the SP-2100's BT profile and try to set the scanner's MFI Mode to "Enable" in the Bluetooth Menu then user can see the "MUX" on the screen with an " i Antenna" mark.
2. Download and install "Uni-Linker" from the App Store. (Search with "UniLinker" on App Store)
3. Try to pair SP-2100 to your iOS device first.
4. Once pairing is done successfully, users can hear a short beep sound with green LED illumination.
5. you can either click on "Uni-Linker" app. or wait for the application execution which will be executing automatically.
6. You can scan the available barcodes then the scanned barcodes will be displayed on the list of Uni-Linker app.



(Application icon) **(Application images)**

Uni-Linker for iOS

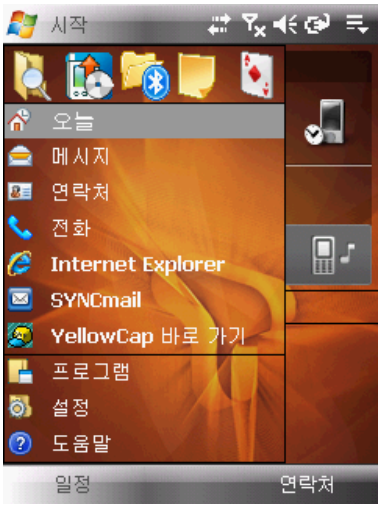
SYMBOLOGY

The SP-2100 supports most major 1D, 2D barcode symbologies as follows.

<table>
<tr><th>SP-2100-1D</th><th>SP-2100-2D</th></tr>
<tr><td rowspan="2">Code128
EAN-13
EAN-8
Code39
UPC-A
UPS-E
Codabar
ISBN
Code 93
GS1 Datarbar
UCC/EAN-128
Interleaved2 of 5
and etc.</td><td><u>1D Barcodes</u>
Code128, EAN-13, EAN-8, Code39,
UPC-A, UPS-E, Codabar,
Interleaved2 of 5, ISBN, Code 93,
UCC/EAN-128, GS1 Datarbar, etc.</td></tr>
<tr><td><u>2D Barcodes</u>
AztecCode, AztecRunes, CodablockF,
Code16K,Code49, DataMatrix, MaxiCode,
MicroPDF, PDF417, QRCode,
and HanXin Code</td></tr>
</table>

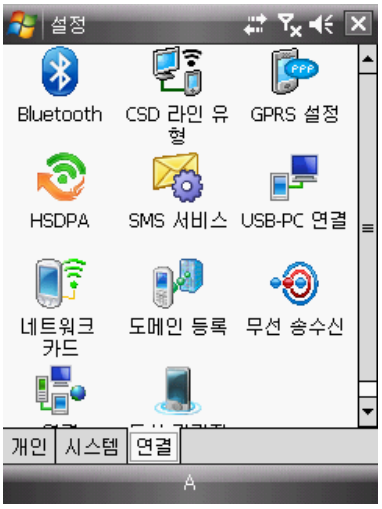
[Listing of Symbologies Supported by SP-2100]

SENDING THE DATA BY MOBILE / Sending to Windows Mobile



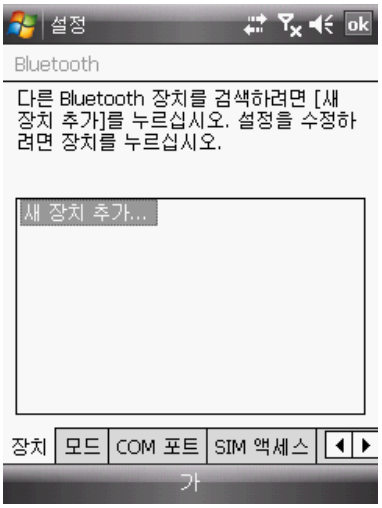
Scanner Settings -> Bluetooth Settings -> Executes the paring.

Starts with Windows Mobile Main Page -> Selects the set-up.

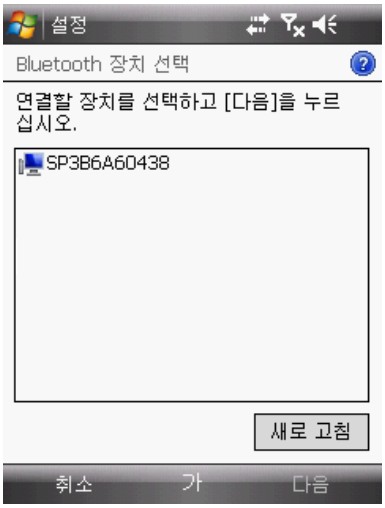


Pls. activate the Bluetooth setting at the connection Tap.

SENDING THE DATA BY MOBILE / Sending to Windows Mobile

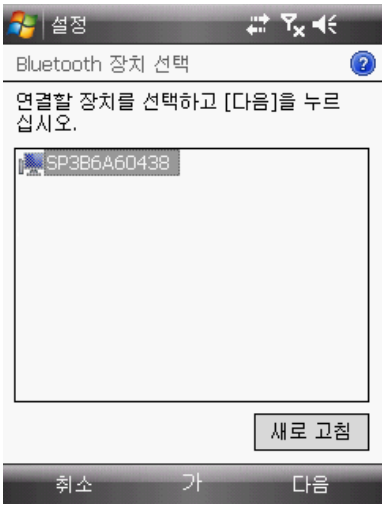


Pls. select the new Installation addition Tap.

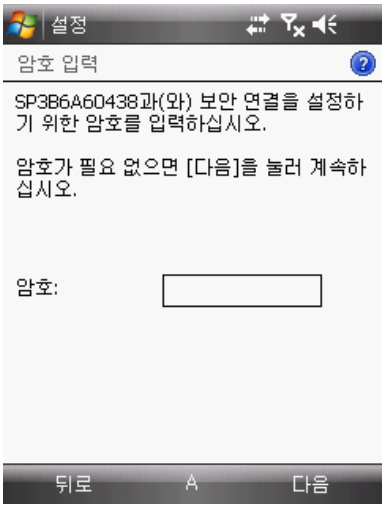


Detected an installation named the SP3BXXXXXXX(SP-2100).

SENDING THE DATA BY MOBILE / Sending to Windows Mobile

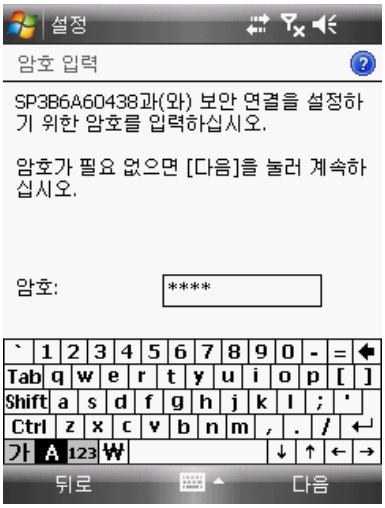


Pls. select "SP3BXXXXXXX(SP-2100)" and press down "Next".

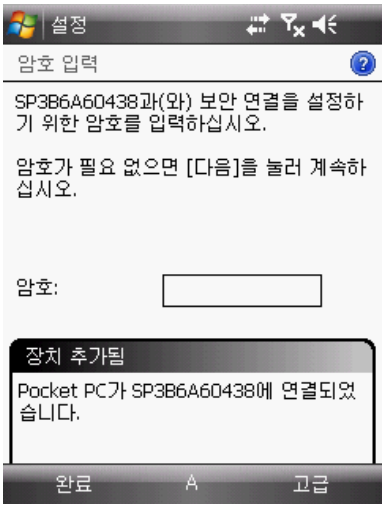


There will be a message to fill out the code.

SENDING THE DATA BY MOBILE / Sending to Windows Mobile

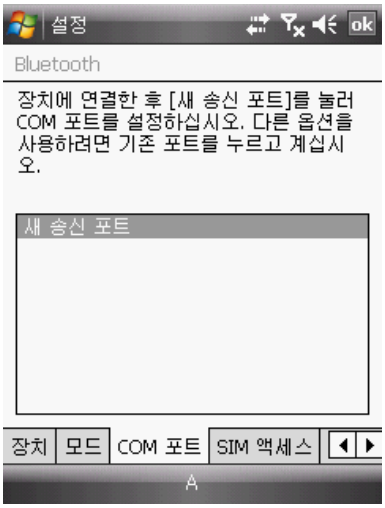


Pls. fill out your code.

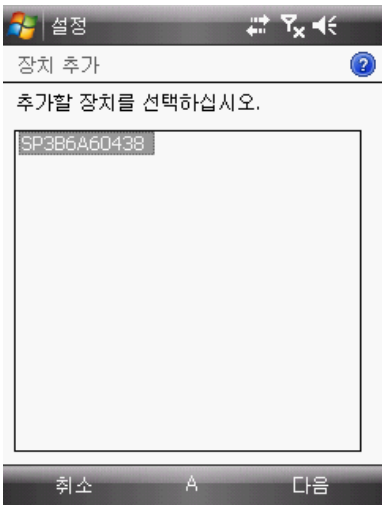


Indicates a connection message when you filled out the code.

SENDING THE DATA BY MOBILE / Sending to Windows Mobile

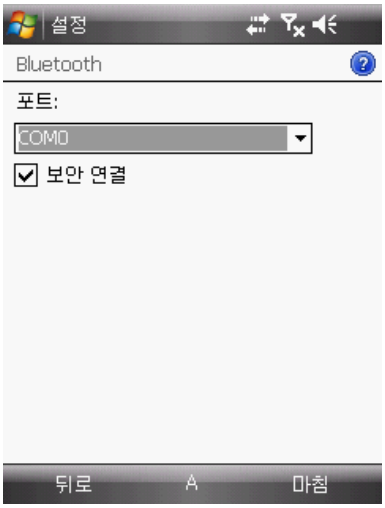


Pls. activate a new transmission port by selecting the COM port Tap.

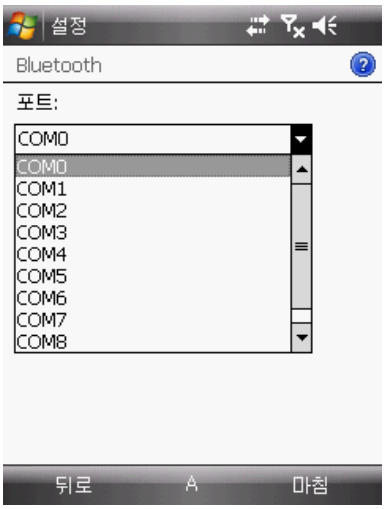


Pls. select "SP3BXXXXXXX(SP-2100)" and press down "Next".

SENDING THE DATA BY MOBILE / Sending to Windows Mobile

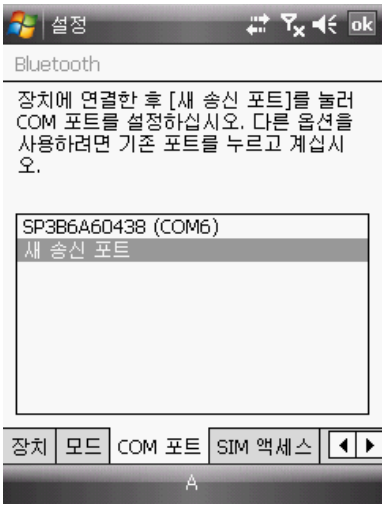


Indicates the Port Setting Menu on the Screen.



COM port should be selected to COM6.

SENDING THE DATA BY MOBILE / Sending to Windows Mobile



Installation of port of SP3BXXXXXXX (SP-2100) to be completed.

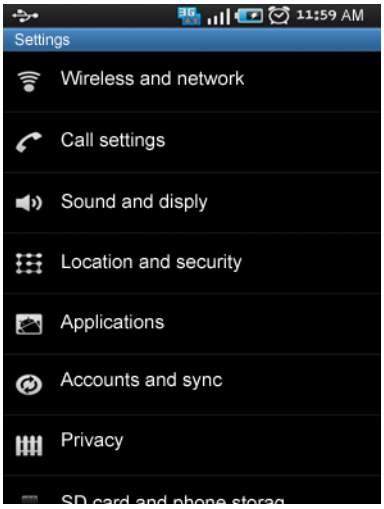
After executing the barcode program and read the Barcode, then the data will be transmitted from the Scanner to user's Mobile.

SENDING THE DATA BY MOBILE / Sending to Android (SPP PROFILE)

Firstly, user needs to change the scanner's BT profile from "MFI" to "MUX" by following the system setting.

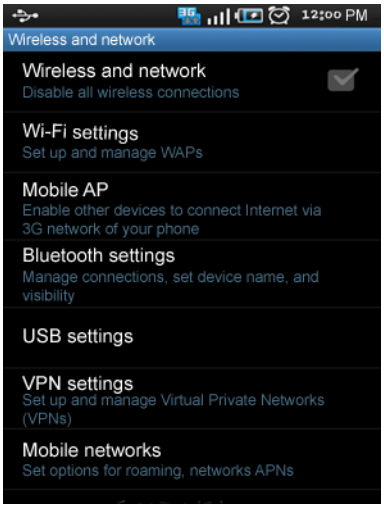
System Menu → Bluetooth →MFI Mode→Disable

Pls. select the setting menu on the Mobile Screen.

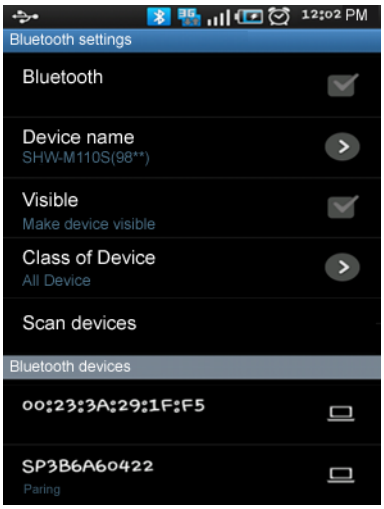


Pls. select the wireless & Network into the setting menu.

SENDING THE DATA BY MOBILE / Sending to Android (SPP PROFILE)

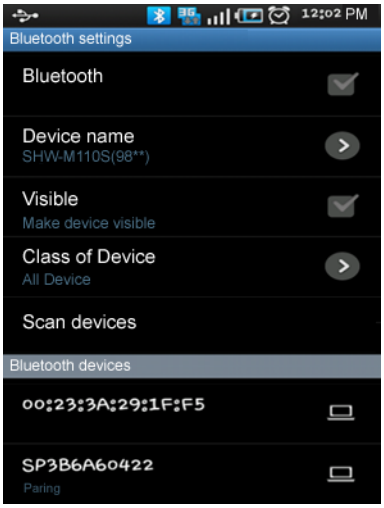

12:00 PM
Wireless and network
Wireless and network
Disable all wireless connections
Wi-Fi settings
Set up and manage WAPs
Mobile AP
Enable other devices to connect Internet via 3G network of your phone
Bluetooth settings
Manage connections, set device name, and visibility
USB settings
VPN settings
Set up and manage Virtual Private Networks (VPNs)
Mobile networks
Set options for roaming, networks APNs

Pls. select the Bluetooth settings at the wireless and Network.

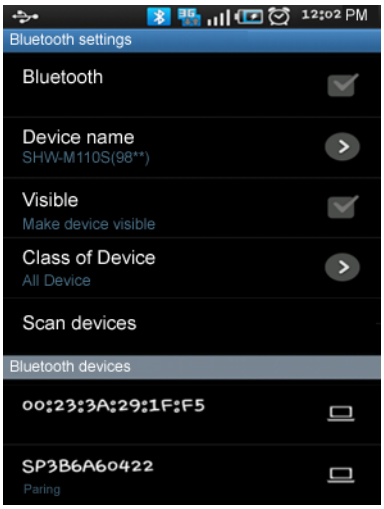


Pls. search the serial no. of your scanner by clicking the Scan devices.

SENDING THE DATA BY MOBILE / Sending to Android (SPP PROFILE)

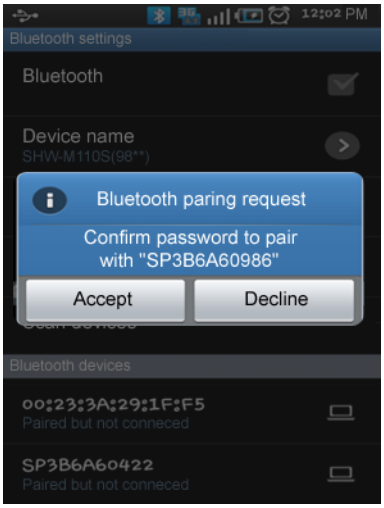


Detected a model named SP3BXXXXXXX(SP-2100)

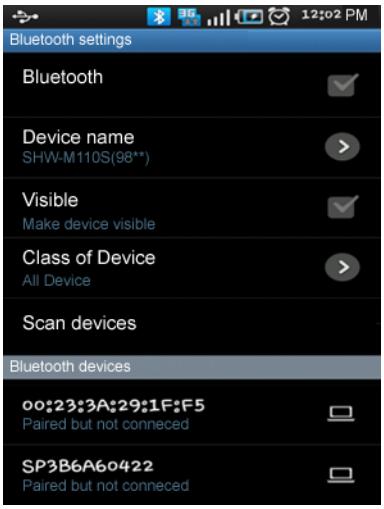


When you select the searched model, paring message will be indicated on the Screen.

SENDING THE DATA BY MOBILE / Sending to Android (SPP PROFILE)



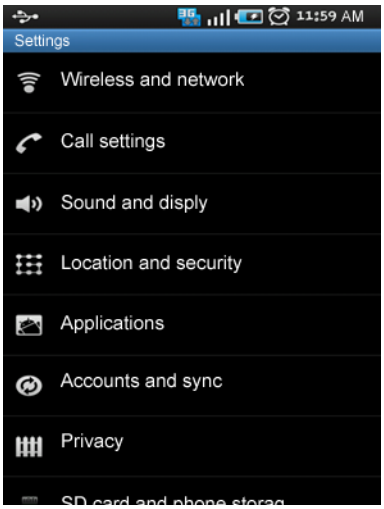
If the connection is successful with your mobile, a request message of Bluetooth paring request will be indicated on the Screen, pls. select "Accept".



If the paring is done, the following message will be indicated on the Screen " Paired but not connected".

Then pls. read the Barcode after executing the Barcode Program.

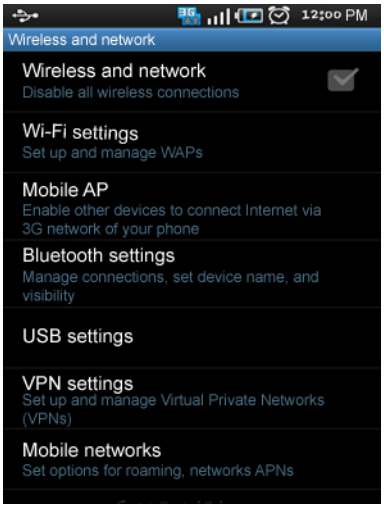
SENDING THE DATA BY MOBILE / Sending to Android (HID PROFILE)



Firstly, user needs to change the scanner's BT profile from "MFI" to "MUX" by following the system setting.

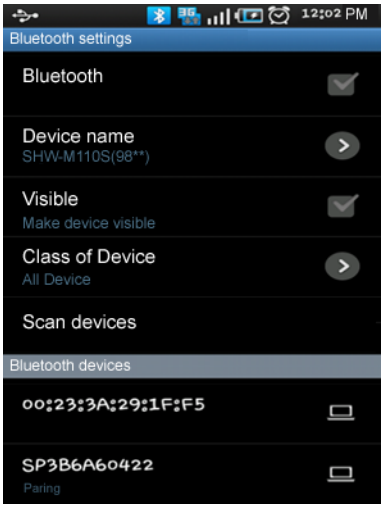
System Menu → Bluetooth →MFI Mode→Disable

Pls. select the wireless & Network into the setting menu.


12:00 PM
Wireless and network
Wireless and network
Disable all wireless connections
Wi-Fi settings
Set up and manage WAPs
Mobile AP
Enable other devices to connect Internet via 3G network of your phone
Bluetooth settings
Manage connections, set device name, and visibility
USB settings
VPN settings
Set up and manage Virtual Private Networks (VPNs)
Mobile networks
Set options for roaming, networks APNs

Pls. select the Bluetooth settings at the wireless and Network.

SENDING THE DATA BY MOBILE / Sending to Android (HID PROFILE)



Pls. search the serial no. of your scanner by clicking the Scan devices and click the serial no. of your scanner so that it starts for pairing.

Once pairing is done, you can see the following message that "Connected to HID device", it means HID pairing is completely done, now is ready for scan.

SENDING THE DATA BY MOBILE / Sending to Android (HID PROFILE)

Pls. open the "Memo application" on the device and then try to scan by reading the available barcodes you need then the data will be transferred to the memo app. like this pic.

SENDING THE DATA BY MOBILE / Sending to iPhone (HID PROFILE)

Firstly, user needs to change the scanner's BT profile from "MFI" to "MUX" by following the system setting.

System Menu → Bluetooth →MFI Mode→Disable

Pls. enter to Settings Menu and select "General" on the device.

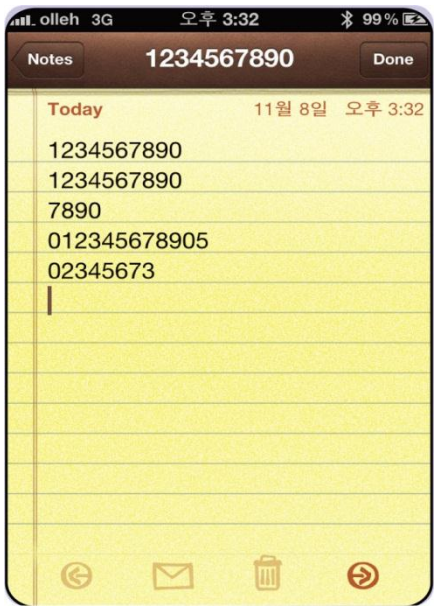
Pls. enter to "Bluetooth" by clicking the Menu.

SENDING THE DATA BY MOBILE / Sending to iPhone (HID PROFILE)

Turn on Bluetooth and look for your scanner's serial no. on the device's screen after that finally click your serial number.

If your connection is done successfully with your device, the following message "Connected" will be shown on the screen with a beep sound, it means that the scanner's pairing is completely done.

SENDING THE DATA BY MOBILE / Sending to iPhone (HID PROFILE)



Pls. go to the Home menu and open "Notes" application.

And press the scan button by reading the available barcodes then the barcode input will bring up on the "Note"

SENDING THE DATA BY MOBILE / Sending to iPhone (MFI PROFILE)

Firstly, user needs to set the scanner's BT profile to "MFI" by following the system setting.

System Menu → Bluetooth →MFI Mode→Enable

(Notes: MFI is a default BT profile at first)

Pls. enter to Settings Menu and select "General" on the device.

Pls. enter to "Bluetooth" by clicking the Menu.

SENDING THE DATA BY MOBILE / Sending to iPhone (MFI PROFILE)

Turn on Bluetooth and look for your scanner's serial no. on the device's screen after that finally click your serial number.

If your connection is done successfully with your device, the following message "Connected" will be shown on the screen with a beep sound, it means that the scanner's pairing is completely done.

SENDING THE DATA BY MOBILE / Sending to iPhone (MFI PROFILE)

Pls. go to the Home menu and open "Uni-Linker" application.

With a short beep sound, users can see the following message "UniReader is connected..."

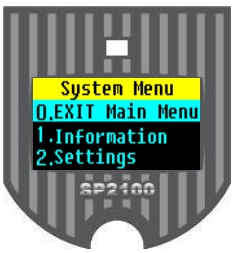
Then users can start to read the barcodes on the scanning test page and send the scanned data on it.

SP-2100 setting condition can be completely controlled by Uni-Linker.

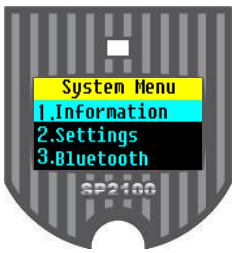
Move to setting menu at Uni-Linker app. then user can easily change the setting options of SP-2100 to user's hopeful condition for satisfaction.

- Other menus at Uni-Linker:
  Information / Firmware / Contact info

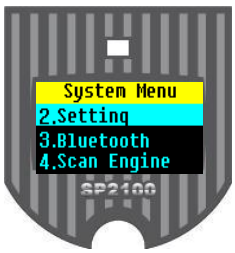
BARCODE SCANNER SETTINGS / Scanner Main Menu



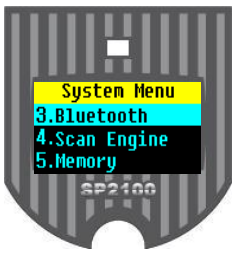
INDEX MENU



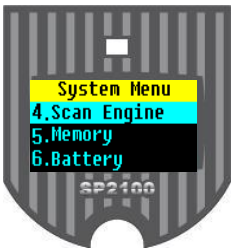
SCANNER INFO.



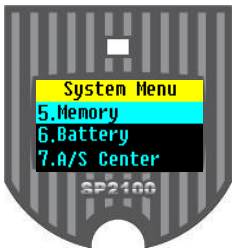
SCANNER SETTINGS



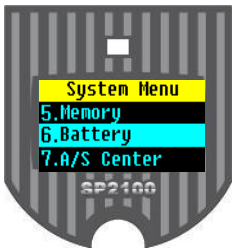
BLUETOOTH SETTINGS



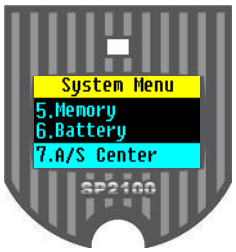
SCAN ENGINE



MEMORY



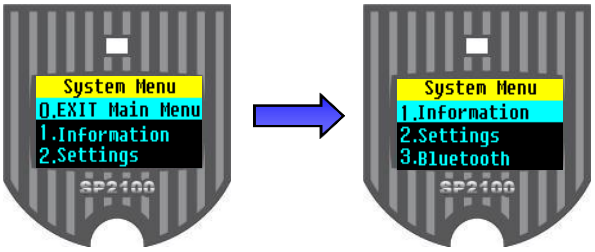
BATTERY INFO.



SERVICE

- Can enter to the setting menu, if user presses down the up button about 3 seconds.
- Can select the menu button, if user presses down the up and down button which is located on the left of scanner.
- Can enter to the selected menu, if user presses down the Scan button which is located on center of scanner.

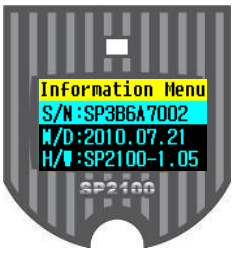
BARCODE SCANNER SETTINGS / Scanner info.



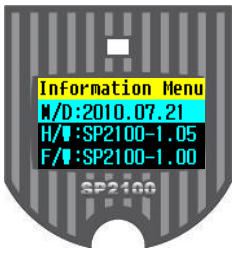
SCANNER MAIN MENU

SCANNER INFO.

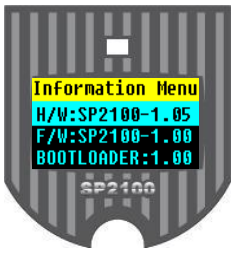
- User can check the present scanner info. through this scanner info. menu.



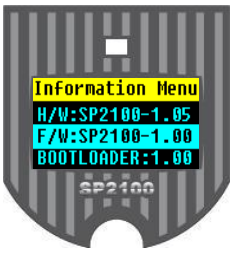
S/N



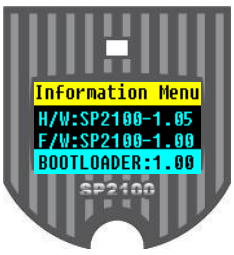
M/D



H/W



F/W

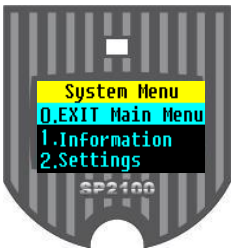


BOOTLOADER

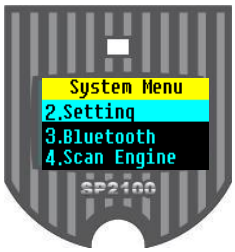
- **S/N :** Shows the particular serial number of the product.
- **M/D :** Shows the manufactured date of the product.
- **H/W :** Shows the present Version of product hardware.
- **F/W :** Shows the Scanner Program Version
- **BOOTLOADER** : Shows the BOOTLOADER Version of the Scanner
- **Memory :** Shows the memory info.

  - Can exit to the Scanner Menu when press down the button of Scan

BARCODE SCANNER SETTINGS / Scanner settings

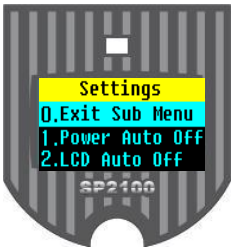


SCANNER MAIN NENU

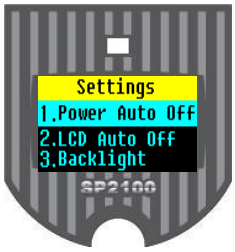


SCANNER SETTINGS

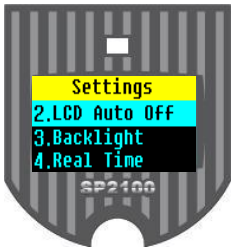
- User can set up the Scanner when user presses down the button of SCAN at the page of main menu scanner info.



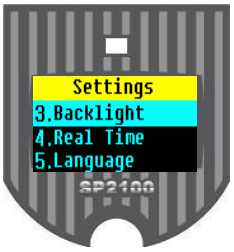
Exit Sub Menu



Power Off Setting

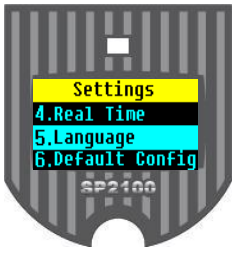


LCD Time Setting



Backlight

Time Setting

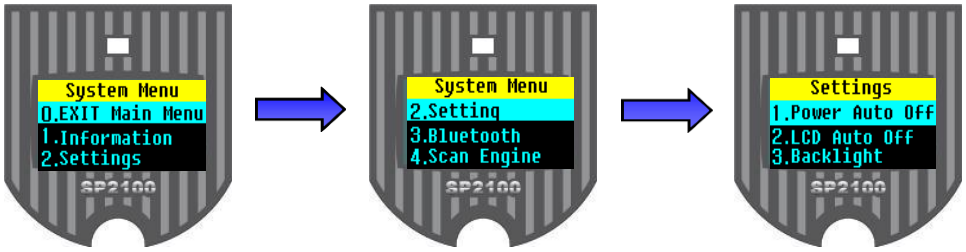


Language Selection

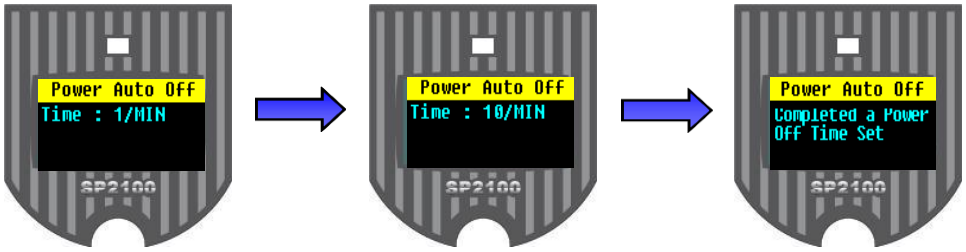
Default Config.

- **Exit Sub Menu :** Exit to the Scanner menu
- **Power Auto Off :** It will automatically turn off if user doesn't use the Scanner during the particular setting time.
- **LCD Auto Off:** LCD window will automatically turn off if user doesn't use the Scanner.
- **Backlight** : Adjust the brightness of LCD Window
- **Real Time Clock** : Setting for present time, date, month, year
- **Pre/Suffix Set** : Setting for scan condition of pre/suffix
- **Language** : Select the Scanner Menu Language (Kor / Eng)
- **Buzzer** : Setting for buzzer use or not.
- **Vibrator** : Setting for vibrator use or not
- **Default Config.** : Initialize all settings of the Scanner

BARCODE SCANNER SETTINGS / Power Off Setting



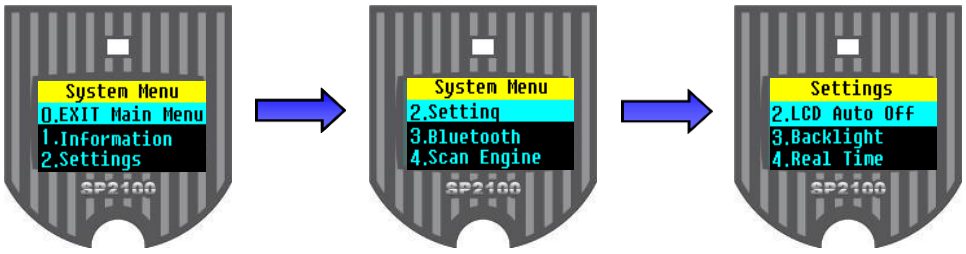
SCANNER MAIN MENU SCANNER SETTING POWER OFF SETTING



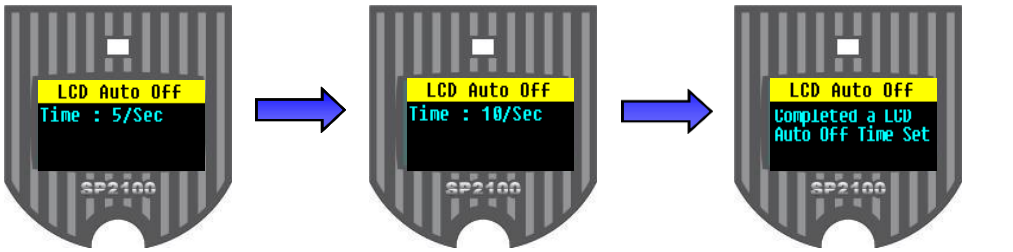
MIN. TIME MAX. TIME SETTING COMPLETION

- Can set-up the power setting by pressing down the Scan Button at the Scanner Setting Menu Power Off.
- Power Auto-Off Time setting can be adjustable from 1 min. up to 10 minutes.
- Can select the menu button, if user presses down the up and down button which is located on left of Scanner.
- Can exit to the Scanner Menu by pressing down the button of Scan after time setting.

BARCODE SCANNER SETTINGS / LCD Auto off settings



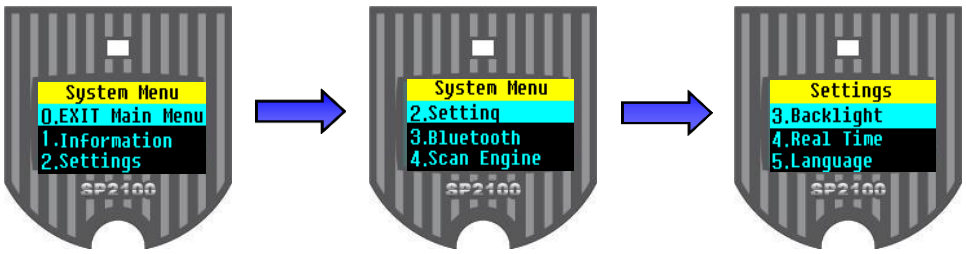
SCANNER MAIN MENU SCANNER SETTING LCD TIME SETTING



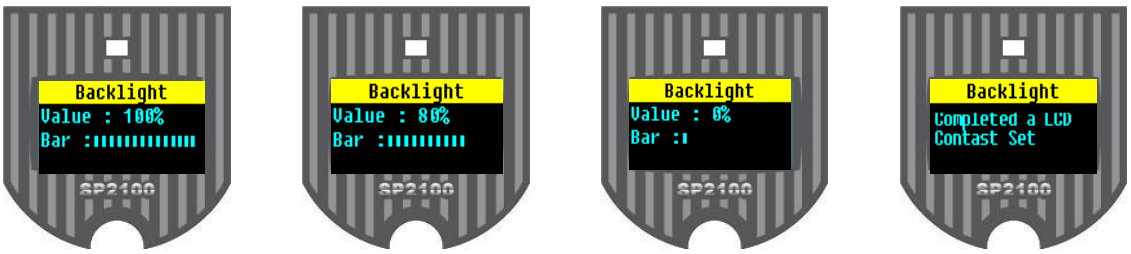
MIN. TIME MAX. TIME SETTING COMPLETION

- Can set-up the LCD time setting by pressing down the Scan Button at the Scanner Menu of LCD time setting.
- LCD Auto Off setting can be adjustable from 2 sec. up to 60 seconds.
- Can select the Time setting, if user presses down the up and down button which is located on left of Scanner.
- Can exit to the Scanner Menu by pressing down the button of Scan after setting.

BARCODE SCANNER SETTINGS / Backlight settings



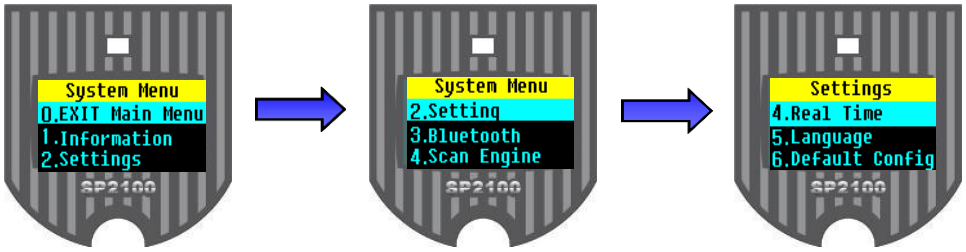
SCANNER MAIN MENU **SCANNER SETTING** **Backlight**



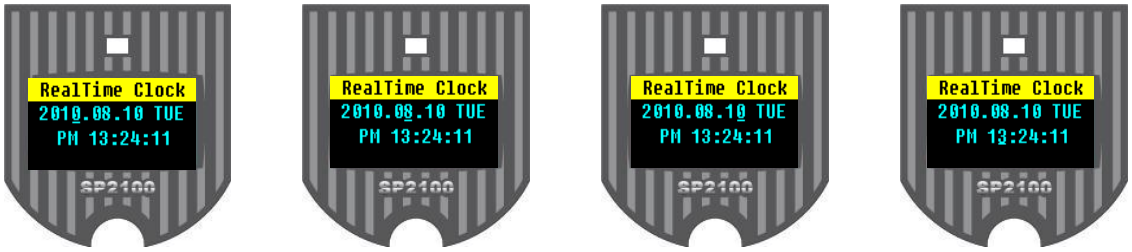
Brightness 100% **Brightness 80%** **Brightness 0%** **Setting Completion**

- Can set-up the LCD Lightness setting by pressing down the Scan Button at the Scanner Menu of LCD brightness setting.
- LCD brightness setting can be adjustable from 0% up to 100%
- Can select the brightness setting, if user presses down the up and down button which is located on left of scanner.
- Can exit to the Scanner Menu by pressing down the button of Scan after LCD brightness setting.
- If the LCD window lightness is brighter, battery will be discharged easily.

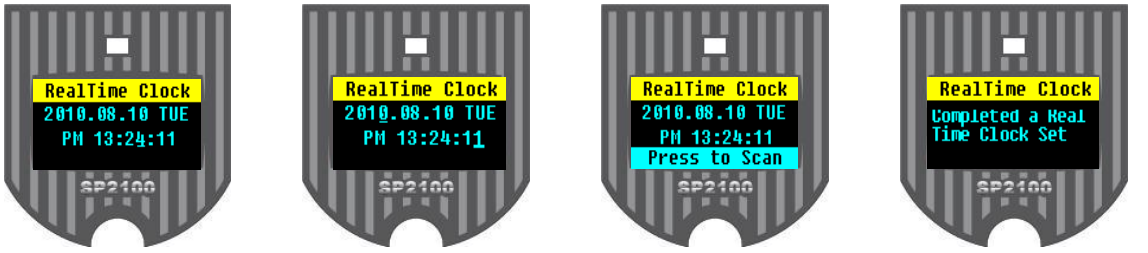
BARCODE SCANNER SETTINGS / Real Time Clock settings



SCANNER MAIN MENU SCANNER SETTING Real TIME SETTING



Year Month Date Hour

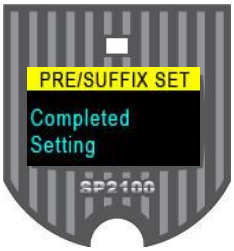


Min. Sec. Exit Menu Setting Completion

- Can set-up the TIME setting by pressing down the Scan Button at the Scanner Menu of Time Setting.
- Can successively change the Year,Month,Date,Hour,Min.,Sec. setting by pressing down the up and down button which is located on left of Scanner.
- The Scanner time setting will be done, after a Sec. Setting finally.

- **※ Pls. note that if the real time setting is incorrect, the stored data after reading the barcode may not be correct.**

BARCODE SCANNER SETTINGS / Pre/Suffix Set



ASCII Input Shortcut

To configure the user definable parameters of SP-2100 via programming menu, SP-2100 will ask you to scan your desired ASCII value in **HEX** form. You have to refer to the "**HEX/ASCII Table**" for details.

(Users can set this prefix/Suffix option on "UniLinker" application in the setting menu)

Example:
If you want the scanned data output leading with a Dollar Sign, you have to set the "Preamble" to "$". The configuration procedure is listed below for reference.

* Refer to the **Hex/ASCII Table**, you will find the HEX value of "**$**" is **24**.

* Select the option code – **2** listed on the fold out back cover. (Change with up/down button)

* Select the option code – **4** listed on the fold out back cover. (Change with up/down button)

* Press the SCAN button when you finish the setting.

HEX/ASCII Reference Table

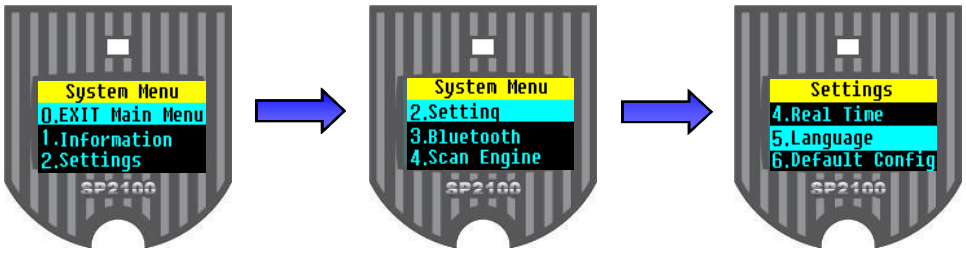
L \ H	0	1	2	3	4	5	6	7
0	NUL	DLE	SPACE	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	"	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	|
D	CR	GS	-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

Example: ASCII "A" →HEX "41" ; ASCII "a" →"61"

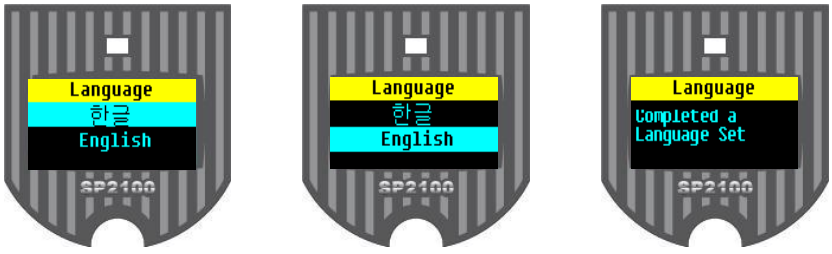
High Byte of HEX Value

Low Byte of HEX Value

BARCODE SCANNER SETTINGS / Language setting



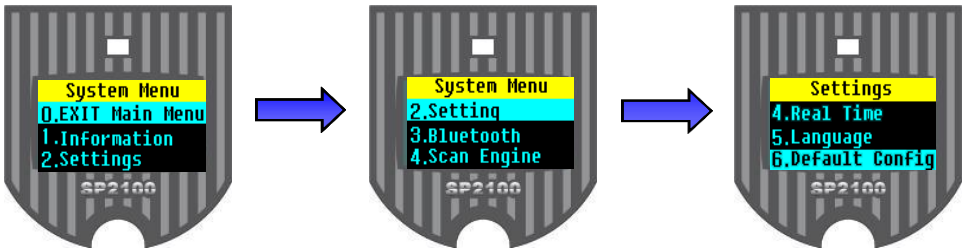
SCANNER MAIN MENU **SCANNER SETTING** **LANGUAGE SELECTION**



KOREAN **ENGLISH** **Setting Completion**

- Can set-up the Language setting by pressing down the Scan Button at the Scanner Menu of Language Setting.
- Language can be selected into Korean or English
- Can select the Language Setting, if user presses down the up and down button which is located on left of Scanner.
- Can exit to the Scanner Menu by pressing down the button of Scan after Language setting.

BARCODE SCANNER SETTINGS / Default Config setting



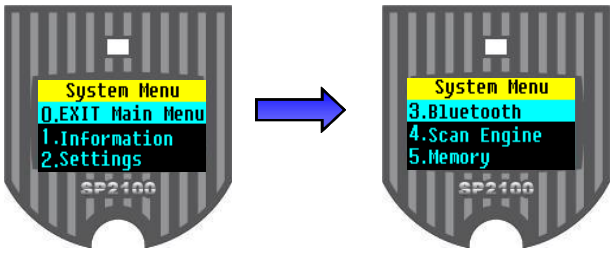
SCANNER MAIN MENU SCANNER SETTING Default Config

Default Config / NO Default Config / YES Setting Completion

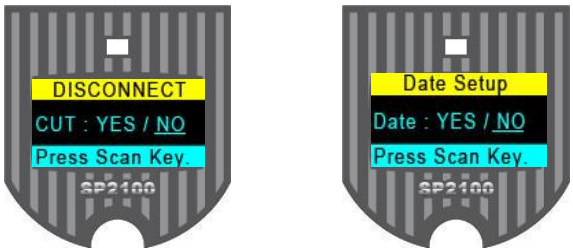
- Can initialize all setting conditions by pressing down the Scan Button at the Scanner Menu of default config.
- Can be adjustable the Setting by pressing down the up and down button which is located on left of Scanner.

- **Caution: Not only system settings but also barcode data can be deleted.**

BARCODE SCANNER SETTINGS / Bluetooth Settings



SCANNER MAIN MENU **BLUETOOTH SETTINGS**

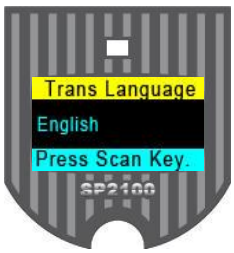


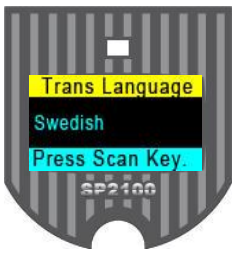
DISCONNECT **HID Add Date**

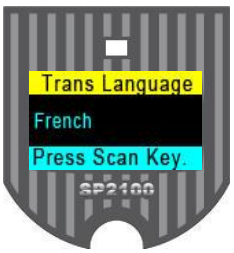
- Can set-up the Bluetooth setting by pressing down the Scan Button at the Scanner Menu of Bluetooth Setting.
- Can be adjustable the Bluetooth Setting by pressing down the up and down button which is located on left of Scanner.

- **Information :** Check for BT version and Profile
- **HID Batch :** Sends the stored barcode data to the device in HID
- **MFI Mode :** Enable or Disable the MFI profile for ios device
- **Auto Reconnect :** Setting for auto reconnect use or not.
- **Disconnect :** Forcibly disconnect the reader's BT from the device
- **Hid Date Add :** Enable to send the barcode data along with real date info.
- **Trans Language :** Setting for Trans language (En/Fr/Da/Sw)
- **HID Select :** Setting for HID Select according to the each country's keyboard condition (Normal / Special)
- **HID Char Delay :** Setting for Character delay in HID
- **HID String Delay :** Setting for String delay in HID

BARCODE SCANNER SETTINGS / Trans Language







- Can select total 4 of Trans languages by selecting one on the menu.
- SP-2100 supports the following Trans languages such as English / Swedish / Danish / French.

※ Pls. note that in order to use this function, users need to set-up SP-2100's trans Language option to the same as your device's keyboard language.

BARCODE SCANNER SETTINGS / HID Char Delay & String Delay

Certain application can't process HID input fast enough and lose some characters during transmission.
Users would increase initial and inter-character delay to prevent data lose during HID transmission

□ HID Character Delay

o Define the Char delay from 10msec to 500msec before data transmission in HID mode

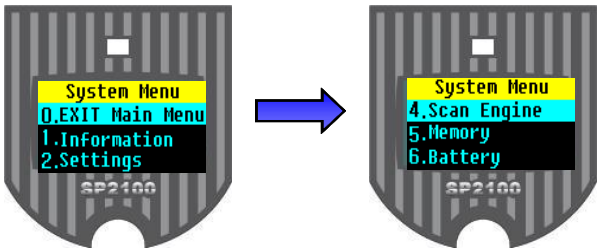
□ HID String Delay

o Define the String delay from 100msec to 5sec in HID mode

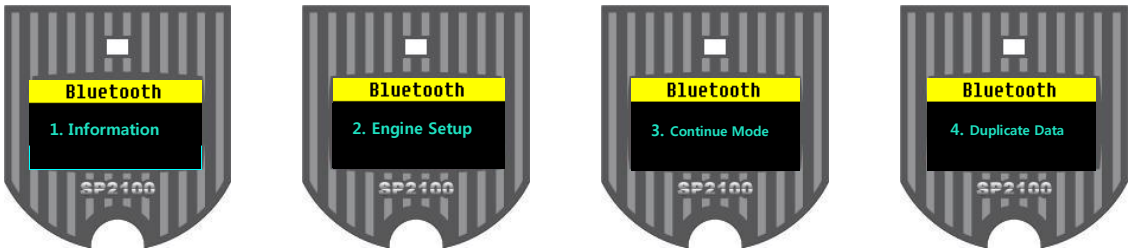
BARCODE SCANNER SETTINGS / HID Char Delay & String Delay

User can synchronize stored barcode data over HID using HID Batch option. SP-2100 starts to transmit all stored barcode data upon executing HID Batch option.

BARCODE SCANNER SETTINGS / Scan Engine



SCANNER MAIN MENU **SCAN ENGINE**

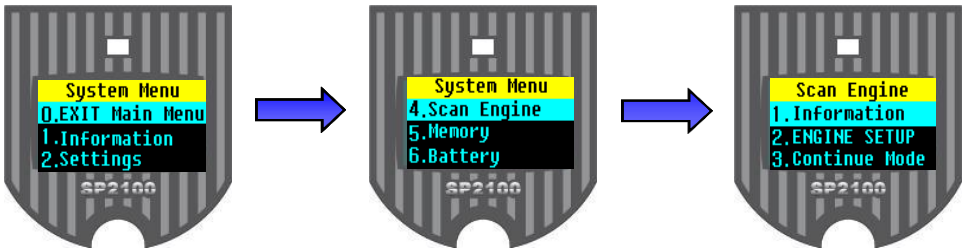


Information **Engine Setup** **Continue Mode** **Duplicate Data**

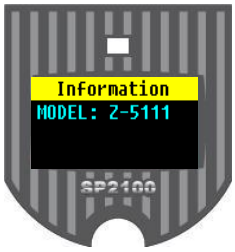
- **Scan Engine Info.** : Can confirm the Device Engine information
- **Scan Engine Setup** : Can setup the engine by reading setting barcodes at this mode
- **Continue Mode** : Can setup your engine's reading condition either Auto or Manual by entering at this menu
- **Duplicate Data setting**: Do not scan the Barcode data which is duplicated.

  - Can be adjustable the setting options by pressing down the up/down button which is located on left of Scanner.

BARCODE SCANNER SETTINGS / Scan Engine Info.



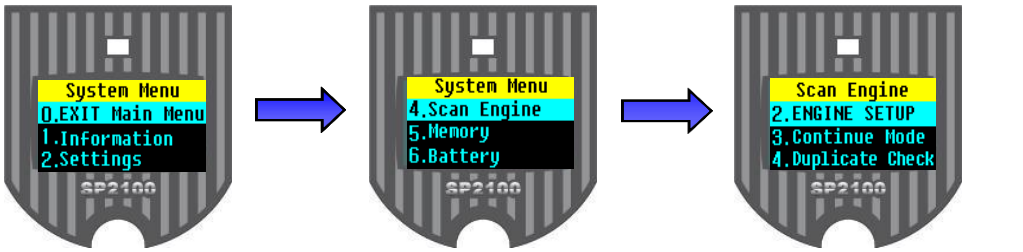
SCANNER MAIN MENU **SCAN ENGINE** **SCAN ENGINE INFO.**



SCAN ENGINE INFO.

- Can set-up the Scan Engine Info. by pressing down the Scan Button at the Scanner Menu Screen of Scan Engine Info.
- Scan Engine Info. : Can check the scanner's engine info. which is built-in to the Scanner.
- Can exit to the Menu when user presses down the Scan Button.

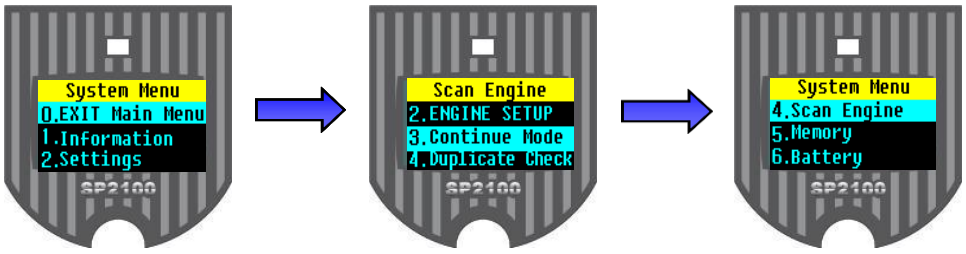
BARCODE SCANNER SETTINGS / Scan Engine setting



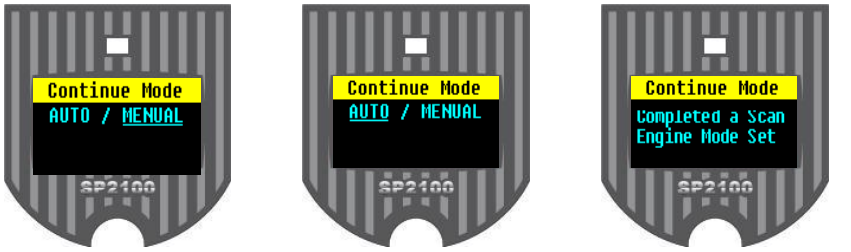
SCANNER MAIN MENU **SCAN ENGINE** **SCAN ENGINE SETTING**

- Can set-up the Scan Engine Setting by pressing down the Scan Button at the Scanner Engine Menu Screen of Scan Engine Setting.
- This is a Barcode Engine Set-up Menu only.
- Pls. refer to the Barcode Engine Set-up Menu attached.
- It will automatically exit when a user doesn't use the SP-2100 for about 5 min after setting.

BARCODE SCANNER SETTINGS / Auto & Manual engine setting



SCANNER MAIN MENU **SCAN ENGINE** **SCAN ENGINE INFO.**

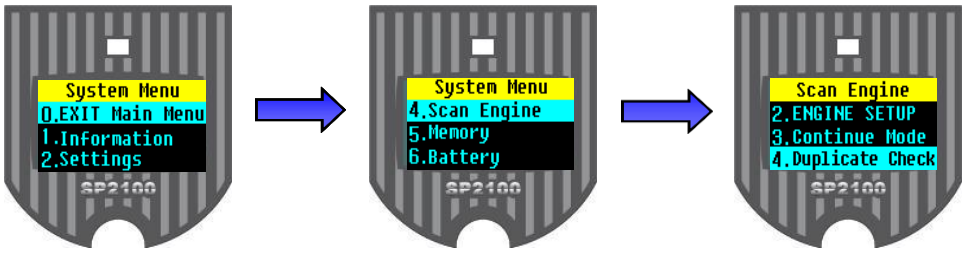


MANUAL Setting **AUTO Setting** **Setting Completion**

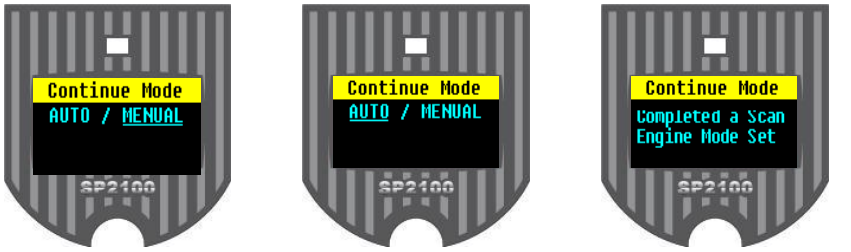
- Can set-up the Auto/Manual Setting by pressing down the Scan Button at the Scanner Engine Menu Screen of Auto/Manual Setting.
- Auto Setting: Barcode can be automatically read without pressing down the Scan Button of the Scanner.
- Manual Setting: Barcode gets started to read the barcode when user press down the Scan Button of the Scanner.

- Note: If it is set-up with Auto Mode, battery will be discharged easily.

BARCODE SCANNER SETTINGS / Duplication check setting



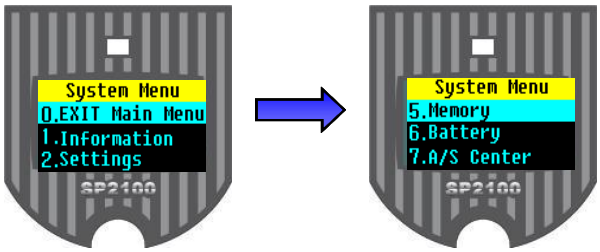
SCANNER MAIN MENU SCAN ENGINE SCAN ENGINE INFO.



MANUAL AUTO Setting Completion

- Can set-up the Duplication Check Setting by pressing down the Scan Button at the Scanner Engine Menu Screen of Duplication Check Setting.
- Scan Engine Setting : When the equipment reads the same barcode in two times, only one barcode data will be delivered and stored.

BARCODE SCANNER SETTINGS / Memory



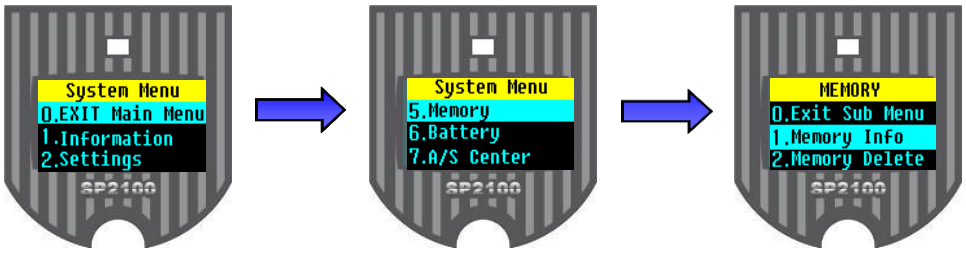
SCANNER MAIN MENU MEMORY

Exit Sub Menu Memory Info. Memory Delete Data Save

- Can check the Memory Info. by pressing down the Scan Button at the Scanner Engine Menu Screen of Memory.
- There are Memory delete function and Memory use information in the Memory.
- If you go to the "Data Save" menu then you can choose total three of available options.
  SR : means " Save & Real send "
  SN : means " Save & Not send "
  PR : means " Pass & Real send "

- If users choose the Menu Exit then you can move to the Main Menu

BARCODE SCANNER SETTINGS / Memory use info.

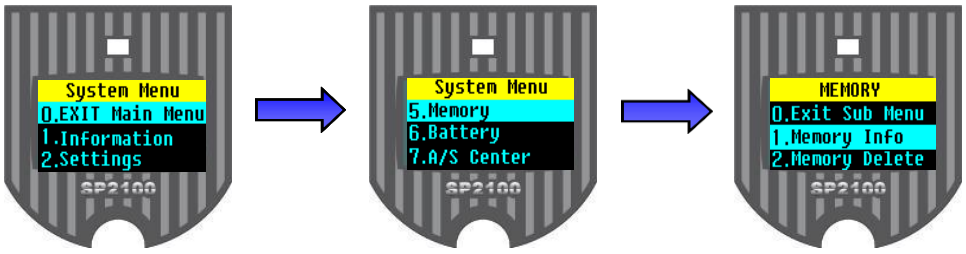


SCANNER MAIN MENU **MEMORY** **MEMORY INFO.**

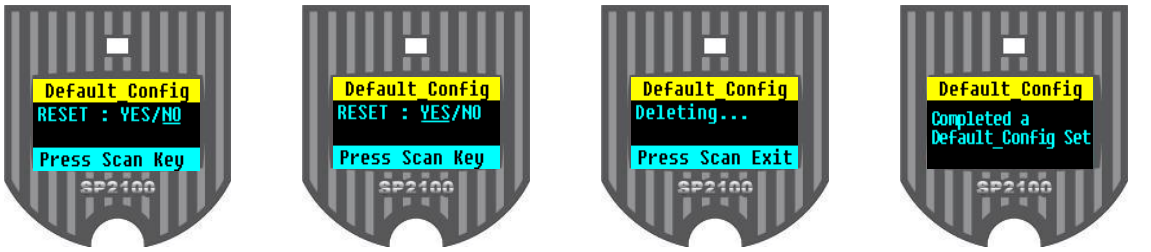
SCAN EXIT

- Can check the Memory use Info. by pressing down the Scan Button at the Scanner Engine Menu Screen of Memory Use Info.
- User is a possible Memory capacity.
- System is a stored Memory included the setting info. in the equipment.
- Can exit to the Menu when press down the Scan Button

BARCODE SCANNER SETTINGS / Memory delete



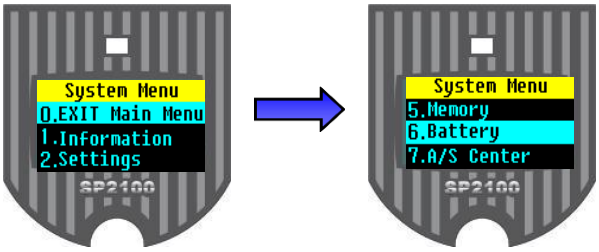
SCANNER MAIN MENU MEMORY MEMORY INFO.



RESET CANCEL DELETE DELETING DELETE COMPLETION

- Can delete the Memory data by pressing down the Scan Button at the Memory delete Screen of Memory menu.
- If user select "No", the Memory Delete will be cancelled.
- If user select "Yes", all stored data can be deleted but except the Configuration settings.
- Can exit to the Menu when a user press downs the Scan Button.

BARCODE SCANNER SETTINGS / Battery info

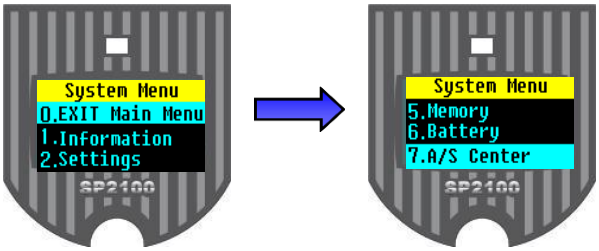


SCANNER MAIN MENU **BATTERY**

Battery Info.

- Can check the Battery Charging Status by pressing the Scan Button at the Battery info. Menu.
- Voltage : Charging Voltage
- Capacity : Pls. charge the battery in case of battery residual lower than 30 %.

BARCODE SCANNER SETTINGS / Service



SCANNER MAIN MENU **A/S CENTER**

INFO. OF A/S CENTER

- Can check the A/S Center Info. by pressing down the Scan Button at the Service.
- In case of product defects, pls. call to our A/S Center directly so that we can rapidly & kindly solve the issue.